

THAT WHICH IS CLAIMED IS:

1. A gas-cooled turbine generator comprising:
a rotor having baffles arranged in rings and defining a plurality of gas zones;
a stator core having stator slots and a bore in which said rotor is received, and a plurality of air gap baffle assemblies arranged in segmented baffle rings within said stator slots and cooperating with said baffles on said rotor, each of the air gap baffle assemblies comprising at least one baffle segment and an individual locking cam cooperating with a respective baffle segment and locking the baffle segment relative to a stator slot at which the baffle segment is positioned.
2. A gas-cooled turbine generator according to Claim 1, wherein said baffle segment comprises a wedge formed to receive said individual locking cam such that upon twisting of said locking cam, said wedge is deformed for locking said baffle segment relative to said stator slot.
3. A gas-cooled turbine generator according to Claim 2, wherein each individual locking cam comprises a tubular stub member having an external locking cam surface for engaging said wedge such that upon rotation of said locking cam, said external locking cam surface deforms the wedge.
4. A gas-cooled turbine generator according to Claim 2, wherein each baffle assembly further comprises a

locking plate received within a stator slot and cooperating with said wedge.

5. A gas-cooled turbine generator according to Claim 4, wherein a locking plate includes an external lock for locking said plate relative to a slot to prevent movement of said baffle assemblies.

6. A gas-cooled turbine generator according to Claim 2 wherein said wedge comprises leg members forming a bore that receives said locking cam.

7. A gas-cooled turbine generator according to Claim 1, wherein each individual locking cam comprises an end portion adapted for engaging a locking tool carried by a self-propelled vehicle that is insertable and movable within an air gap formed between said stator and rotor.

8. A gas-cooled turbine generator according to Claim 1, wherein each baffle segment comprises a transverse member having an arcuate surface that cooperates and defines a gap with baffles on said rotor.

9. A gas-cooled turbine generator according to Claim 8, wherein each baffle assembly comprises two baffle segments positioned adjacent to each other, and said transverse members are dimensioned to interlock transverse members of adjacent baffle assemblies forming the segmented baffle ring.

10. A dynamoelectric machine comprising:
a substantially airtight casing adapted to be filled with a cooling gas;
a stator core disposed within the casing and including a cylindrical bore and longitudinal stator slots formed therein;
a rotor positioned for rotation within said cylindrical bore and forming an air gap between said rotor and stator core;
a plurality of baffles positioned on said rotor in a ring within said air gap and defining a plurality of gas zones for cooling; and
a plurality of air gap baffle assemblies arranged in segmented baffle rings within said stator slots and cooperating with said baffles on said rotor, each of the air gap baffle assemblies comprising at least one baffle segment and an individual locking cam cooperating with a respective baffle segment and locking the baffle segment relative to a stator slot at which the baffle segment is positioned.

11. A dynamoelectric machine according to Claim 10, wherein said baffle segment comprises a wedge formed to receive said individual locking cam such that upon twisting of said locking cam, said wedge is deformed for locking said baffle segment relative to said stator slot.

12. A dynamoelectric machine according to Claim 11, wherein said individual locking cam comprises a tubular stub member having an external locking cam surface for engaging said wedge such that upon rotation of said

locking cam, said external locking cam surface deforms the wedge.

13. A dynamoelectric machine according to Claim 11, wherein each baffle assembly further comprises a locking plate received within a stator slot and cooperating with said wedge.

14. A dynamoelectric machine according to Claim 13, wherein a locking plate includes an external lock for locking said plate relative to a slot.

15. A dynamoelectric machine according to Claim 11, wherein said wedge comprises leg members forming a bore that receives said locking cam.

16. A dynamoelectric machine according to Claim 10, wherein each individual locking cam comprises an end portion adapted for engaging a locking tool carried by a self-propelled vehicle that is insertable and movable within the air gap formed between said stator and rotor.

17. A dynamoelectric machine according to Claim 10, wherein each baffle segment comprises a transverse member having an arcuate surface that cooperates and defines a gap with baffles on said rotor.

18. A dynamoelectric machine according to Claim 17, wherein each baffle assembly comprises two baffle segments positioned adjacent to each other, and said transverse members are dimensioned to interlock

transverse members of adjacent baffle assemblies forming the segmented baffle ring.

19. A method of inserting baffle assemblies arranged within segmented rings within stator slots of a stator core of a gas-cooled turbine generator, each baffle assembly including a baffle segment cooperating with baffles on a rotor to form gas zones for cooling and a locking cam that locks the baffle segment relative to a stator slot comprising the steps of positioning a baffle assembly relative to a stator slot by a self-propelled vehicle and locking the baffle assembly by engaging a locking tool carried by the self-propelled vehicle with the locking cam.

20. A method according to Claim 19, and further comprising the step of positioning and locking each baffle assembly in a center ring within the stator core using the self-propelled vehicle.

21. A method according to Claim 19, and further comprising the step of positioning and locking the baffle assemblies for outer segmented rings using a self-propelled vehicle.

22. A method according to Claim 19, and further comprising the step of positioning and locking the baffle assemblies for outer segmented rings using a manually guided pole.

23. A method according to Claim 19, and further comprising the step of locking a baffle assembly by twisting a cam lock against a wedge of a baffle segment.

24. A method according to Claim 23, and further comprising the step of deforming legs of the wedge against a locking plate to secure the baffle assembly.

25. A method according to Claim 24, and further comprising the step of securing a locking plate by an additional locking mechanism.